

How to Choose the Right Inhaler Using a Patient-Centric Approach?

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Detailed description of inhalation steps for all device types, which are based on previously published literature (Sanchis et al., 2016, Hindle et al., 1993, Levy et al., 2016 and Horvath et al., 2017) and expert panel opinion.

pMDI

- 1) Sit or stand up straight with the chin up and the neck slightly extended
- 2) Shake the pMDI five times and remove its cap, keep it upright
- 3) Turn away from the inhaler and breathe out as far as is comfortable
- 4) Place the mouthpiece between the teeth and seal the lips around it
- 5) Fire the device while beginning slow and deep inhalation and continue inhaling
- 6) Hold the breath for 5-10 s or for as long as is comfortable. While breath holding, take the mouthpiece out of the mouth and relax
- 7) When further doses are required, the entire sequence must be repeated for each additional dose, including shaking the pMDI if necessary
- 8) When the session is ended, place the cap back on the pMDI, and rinse the mouth and gargle after inhalation of a corticosteroid

pMDI + Spacer

- 1) Sit or stand up straight with the chin up and the neck slightly extended.
- 2) Shake the pMDI five times and remove its cap, keep it upright
- 3) Hold the pMDI upright (with the canister up) and fit it into the spacer/VHC. Hold the pMDI–spacer/VHC assembly horizontal, with one hand holding the pMDI between the index finger and thumb, and the other hand supporting the mouthpiece end of the spacer/VHC.
- 4) Turn away from the inhaler and breathe out as far as is comfortable
- 5) Place the spacer/VHC mouthpiece between the teeth and seal the lips around it (or place the mask gently but tightly over the nose and lips)
- 6) Breathe in slowly, immediately press the inhaler once and continue to breathe in slowly (over 4–5 s) until the lungs are full
- 7) Hold the breath for 5-10 s or for as long as is comfortable. While breath holding, take the spacer/VHC out of the mouth (or lower the mask) and relax
- 8) When further doses are required, the entire sequence must be repeated for each additional dose, including shaking the pMDI if necessary. Multiple doses should never be fired together into the spacer/VHC and be inhaled with a single breath
- 9) When the session is ended, take the pMDI out of the spacer/VHC port, place the cap back on the pMDI, and rinse the mouth and gargle after inhalation of a corticosteroid

BAMDI

- 1) Sit or stand up straight with the chin up and the neck slightly extended
- 2) Shake the BAMDI five times and remove its cap, keep it upright
- 3) Charge the dose using the handle of the device in a vertical position to prepare the dose
- 4) Turn away from the inhaler and breathe out as far as is comfortable
- 5) Place the mouthpiece between the teeth and seal the lips around it
- 6) Slowly inhale deeply until the dose is released and keep inhaling completely
- 7) Hold the breath for 5-10 s or for as long as is comfortable. While breath holding, take the mouthpiece out of the mouth and relax

- 8) When further doses are required, the entire sequence must be repeated for each additional dose, including shaking the BAMDI if necessary.
- 9) When the session is ended, place the cap back on the BAMDI, and rinse the mouth and gargle after inhalation of a corticosteroid.

DPI

- 1) Sit or stand up straight with the chin up and the neck slightly extended
- 2) Prepare the device (device-specific)
- 3) Turn away from the inhaler and breathe out as far as is comfortable
- 4) Place the mouthpiece between the teeth and seal the lips around it
- 5) Breathe in with one brisk, deep inhalation of at least 4-5 seconds; if present, use the feedback mechanism to verify a successful inhalation maneuver
- 6) Hold the breath for 5-10 s or for as long as is comfortable. While breath holding, take the mouthpiece out of the mouth and relax
- 7) When further doses are required, the entire sequence must be repeated for each additional dose
- 8) When the session is ended, close the DPI, and rinse the mouth and gargle after inhalation of a corticosteroid

SMI

- 1) Sit or stand up straight with the chin up and the neck slightly extended
- 2) Prepare the dose by turning the device in the direction of the red arrows until a click is heard
- 3) Uncap the device and hold inhaler horizontally
- 4) Turn away from the inhaler and breathe out as far as is comfortable
- 5) Place the mouthpiece between the teeth and seal the lips around it
- 6) Fire the device while beginning slow and deep inhalation and continue inhaling
- 7) Hold the breath for 5-10 s or for as long as is comfortable. While breath holding, take the mouthpiece out of the mouth and relax
- 8) When further doses are required, the entire sequence must be repeated for each additional dose, including shaking the SMI if necessary.
- 9) When the session is ended, place the cap back on the SMI, and rinse the mouth and gargle after inhalation of a corticosteroid.